PAHTL.047A

Knobbe, Martens, Olson & Bear LLP

Appl. No.: 09/643,172

Filed: August 21, 2000

REMARKS

Claims 1–27 are pending.

Claim Rejections under 35 U.S.C. § 112.

Claims 15–27 stand rejected under 35 U.S.C. § 112 as indefinite. Applicants thank the Examiner for his suggestion and have amended claim 15 accordingly, replacing "the outlet" with "an outlet."

Claim Rejections under 35 U.S.C. § 102(b) as anticipated by Miller.

Claims 1, 5-7, 15, 25, and 26 stand rejected under 35 U.S.C. § 102(b) as anticipated by Miller.

Claim 1 recited a method of preventing freezing at an outlet of a fire extinguisher by contacting the fire extinguisher fluid with a drying agent. Figure 2 in Miller illustrates a fire extinguisher for an aircraft comprising two bottles for the extinguisher fluid 38 and a filter/dryer 50 containing molecular sieves to dry the extinguisher fluid. The filter/dryer prevents the nozzle from plugging from water freeze-up. 5:2-5.

Claim 1 has been amended to incorporate claim 2, and now provides that the drying agent is contacted with the fire extinguisher fluid inside the fire extinguisher. Accordingly, Applicants believe that the amendment overcomes the Examiner's rejection because the filter/dryer disclosed in Miller is external to the bottles of extinguisher fluid.

Because claims 5–7 are dependent on claim 1, Applicants believe that the amendment to claim 1 also overcomes the rejections of these claims as anticipated by Miller.

Claim 15 claimed an apparatus for preventing freezing at an outlet of a fire extinguisher comprising a fire extinguisher bottle and a removable container containing a drying agent. Applicants have amended claim 15 to recite that the removable container is removable from the inside of the fire extinguisher. Because Miller discloses a filter/dryer external to fire extinguisher bottles, Applicants believe that the claim amendment overcomes Examiner's rejection over Miller.

Similarly, because claims 25 and 25 are both dependent on claim 15, Applicants believe that Examiner's rejections of these claims over Miller are overcome by the amendment to claim 15.

Claim Rejections under 35 U.S.C. § 103(a) over Miller in view of Tsuchiya.

Claim 4 stands rejected under 35 U.S.C. § 103(a) over Miller in view of Tsuchiya. Examiner asserts that Tsuchiya teaches using zeolite as a drying agent for a refrigeration fluid.

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Claim 4 is dependent on claim 1 and further provides that the drying agent comprises a zeolite. Applicants believe that the amendment to claim 1 of placing the drying agent inside the fire extinguisher overcomes the rejection. Because Miller does not disclose placing a drying agent inside a fire extinguisher, every limitation of claim 4 is not taught by the combination of Miller and Tsuchiya.

Claim Rejections under 35 U.S.C. § 103(a) over Miller in view of Griswold et al.

Claims 2, 13–24, and 27 stand rejected under 35 U.S.C. § 103(a) over Miller in view of Griswold et al. Examiner asserts that Griswold et al. discloses a fire extinguisher bottle with a wire mesh removable container. Examiner further argues that it would have been obvious to configure the device of Miller with a wire mesh container as suggested by Griswold et al. since it would provide a way for releasing chemicals within a fire extinguisher.

Claims 2 and 16 have been cancelled and their subject matter incorporated into claims 1 and 15. Accordingly, the rejection applies to claims 1, 13–15, 17–24, and 27. Applicants contend that neither Miller nor Griswold et al. provide a motivation to combine. Miller does not suggest that it would be desirable to place a drying agent inside a fire extinguisher. Griswold et al. does not suggest that a drying agent is useful in a fire extinguisher. The apparatus disclosed in Griswold et al. is not adapted for use with a drying agent because the container 1 is charged with water 11. Accordingly, Griswold et al. does not provide any reason to modify the configuration of Miller by placing a drying agent inside of the fire extinguisher.

Moreover, the fire extinguishing agent in Griswold et al. is formed by the mixing of water with chemicals placed in a glass tube 14. 1b:15–18. Accordingly, the water used in Griswold et al. is not analogous to the fire extinguishing fluid recited in claims 1 and 15 of the present application. To the contrary, the fire extinguishing agent in Griswold et al. is prepared immediately before and during use of the fire extinguisher. For all of these reasons, Applicants believe that the rejection to independent claims 1 and 15 and their dependent claims, 13–14, 17–24, and 27 are overcome.

Claim Rejections under 35 U.S.C. § 103(a) over Miller in view of Birk.

Claims 3, 8, and 9 stand rejected over Miller in view of Birk. Examiner asserts that Birk teaches bromotrifluoromethane or halocarbon as the extinguisher fluid and that it would have been obvious to combine the device of Miller with the extinguisher fluid of Birk.

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Because claims 3, 8, and 9 are dependent on claim 1, Applicants believe that the amendment to claim 1 providing the drying agent inside the fire extinguisher overcomes the rejection because the combination of Miller and Birk do not teach this limitation.

Claim Rejections under 35 U.S.C. § 103(a) over Miller.

Claims 7 and 10 stand rejected over Miller.

Claim 7 is dependent on claim 1, further providing that the fire extinguisher fluid is contacted with the fire extinguisher fluid for at least 2 days. Applicants believe that the amendment to claim 1 overcomes this rejection because Miller does not teach that the drying agent is inside the fire extinguisher.

Claim 10 is dependent on claim 1 and further provides that the fire extinguisher fluid contains less than 40 ppm of water. Applicants believe that the amendment to claim 1 also overcomes this rejection for the same reasons.

Claim Rejections under 35 U.S.C. § 103(a) over Miller in view of Drobyshev.

Claims 11 and 12 stand rejected over Miller in view of Drobyshev. Examiner asserts that Drobyshev teaches granules, blocks, and bars of zeolite used as a drying agent for a fire extinguisher.

Claims 11 and 12 are dependent on claim 1, further providing that the drying agent is in the form of a shaped solid or pellets, respectively. Applicants believe that the amendment to claim 1 overcomes this rejection because Miller does not teach that the drying agent is inside the fire extinguisher.

Moreover, Applicants point out that Drobyshev does not teach the use of granules, blocks, or bars of zeolite as a drying agent for a fire extinguisher. In fact, Drobyshev teaches granules, blocks, or bars of zeolite as component of a fire extinguishing agent. Accordingly, one would not be motivated to combine Miller, which teaches a fire extinguisher fluid, with Drobyshev, which teaches solid fire extinguishing materials.

CONCLUSION

For all of the foregoing reasons, Applicants respectfully submit that all of Examiner's rejections have been overcome and earnestly request an early allowance of all pending claims. If Examiner believes that a telephonic conference would expedite the examination of this application, Examiner is urged to contact the undersigned. Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

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Knobbe, Martens, Olson & Bear LLP

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated:

moch 3, 2003

By:

Pui Tong Ho

Registration No. 44,155 Attorney of Record 2040 Main Street

2040 Main Street Fourteenth Floor

Irvine, CA 92614

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